#### **REMARKS**

### **Summary of Telephonic Interview**

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On or about August 04, 2005, Applicant's representative Robert Lampe contacted Examiner Lu to discuss the restriction requirement mailed February 16, 2005, in the instant application. It is noted that the Interview Summary form incorrectly lists Ronald Fedus as a participant. Applicants appreciate the Examiner taking the time to briefly discuss the restriction requirement mailed February 16, 2005, in the instant application. Applicant's representative informed the Examiner that a preliminary amendment was previously filed in this application on July 03, 2001, and that the preliminary amendment had not been taken into consideration when the February 16, 2005, restriction requirement was mailed. The Examiner kindly indicated that he would re-issue the restriction requirement, taking the preliminary amendment of July 03, 2001, into account.

# Response to Restriction Requirement

Applicants respectfully disagree with the Restriction Requirement and traverse the Restriction Requirement for the reasons set forth below. However, in order to be fully responsive to the Restriction Requirement mailed August 17, 2005, Applicants provisionally elect the subject matter of Group II, claims 6-25 and 117-148, drawn to an oligo- or polydeoxynucleotide displacer-linker duplex (claims 6-22 and 117-147) and an artificially constructed polydeoxynucleotide hybrid (claims 23-25 and 148), classified in class 536, subclass 23.1.

Applicants further elect the following species for Group II as required by the Restriction Requirement:

1.) at least one of the nucleotides complementary to one strand of the recipient polydeoxynucleotide duplex is a modified nucleotide which increases the stability of the hybrid displacer-recipient duplex (claims 9 and 125) (See page 9 of the Restriction Requirement);

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- 2.) a modified nucleotide is 5-halogenated pyrimidine nucleotides (claims 130-132) (See page 10 of the Restriction Requirement);
- 3.) the moiety is attached to the deoxyribose moiety at the hydroxyl group of a terminal nucleotide (claims 137 and 140) (See page 11 of the Restriction Requirement); and
- 4.) the moiety is polypeptide or protein (claim 141) (See page 12 of the Restriction Requirement).

## **Restriction Requirement**

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The restriction requirement subjected claims 2-178 to restriction under 35 U.S.C. § 121 between one of the following inventions:

- **Group I)** Claims 2-5 and 26-39, drawn to a method of forming a nonstable complex (claims 2-5) and a method of modifying a recipient polydeoxynucleotide duplex (claims 26-39), classified in class 435, subclass 6;
- Group II) Claims 6-25 and 117-148, drawn to an oligo- or polydeoxynucleotide displacer-linker duplex (claims 6-22 and 117-147) and an artificially constructed polydeoxynucleotide hybrid (claims 23-25 and 148), classified in class 536, subclass 23.1;
- **Group III)** Claims 40-56, drawn to a method of labeling an artificially constructed nucleic acid hybrid, classified in class 435, subclass 6;
- **Group IV**) Claims 57-87, drawn to an oligo- or polydeoxynucleotide displacer, classified in class 536, subclass 23.1;
- **Group V)** Claims 88-116 and 149-176, drawn to a method of modifying a recipient polydeoxynucleotide duplex (claims 88-108, 113-116, 149-168, and 173-176) and a method of labeling a displacer-recipient complex (claims 109-112 and 169-172), classified in class 435, subclass 6; and
- Group VI) Claims 177 and 178, drawn to a process for site-specific addition, deletion or alteration of nucleotides in a recipient polynucleotide duplex in a cell (claim 177) and a process for repairing a mutational lesion in a cell (claim 178).

The Restriction Requirement further provided numerous election of species requirements for prosecution on the merits as set forth for the restricted groups on pages 6-24 of the Restriction Requirement, as well as a listing of all claims readable on the elected species.

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As noted above, Applicants respectfully disagree with the Restriction Requirement and traverse the Restriction Requirement. However, in order to be fully responsive to the Restriction Requirement, Applicants provisionally elect the subject matter of Group II, claims 6-25 and 117-148, drawn to an oligo- or polydeoxynucleotide displacer-linker duplex (claims 6-22 and 117-147) and an artificially constructed polydeoxynucleotide hybrid (claims 23-25 and 148), classified in class 536, subclass 23.1.

Applicants further elect the following species for Group II as required by the Restriction Requirement:

- 1.) at least one of the nucleotides complementary to one strand of the recipient polydeoxynucleotide duplex is a modified nucleotide which increases the stability of the hybrid displacer-recipient duplex (claims 9 and 125) (*See* page 9 of the Restriction Requirement). Applicants submit that claims 6-9, 11-24, 117-125 and 127-148 correspond to this elected species.
- 2.) a modified nucleotide is 5-halogenated pyrimidine nucleotides (claims 130-132) (*See* page 10 of the Restriction Requirement). Applicants submit that claims 6-14, 16-24, 117-132 and 134-148 correspond to this elected species.
- 3.) the moiety is attached to the deoxyribose moiety at the hydroxyl group of a terminal nucleotide (claims 137 and 140) (See page 11 of the Restriction Requirement). Applicants submit that claims 6-24, 117-137 and 139-148 correspond to this elected subject matter.
- 4.) the moiety is polypeptide or protein (claim 141) (See page 12 of the Restriction Requirement). Applicants submit that claims 6-24, 117-138, 140, 141 and 144-148 correspond to this elected subject matter.

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According to the M.P.E.P., when claims can be examined together without undue burden, the USPTO must examine the claims on the merits even if they are directed to independent and distinct inventions. See M.P.E.P. § 803 (8th ed., 4<sup>th</sup> rev.). In establishing that an "undue burden" would exist for co-examination of claims, the USPTO must show that examination of the claims would involve substantially different prior art searches (i.e., that the restricted groups have a separate classification, acquired a separate status in the art, or that searching would require different fields of search), making the co-examination burdensome. See M.P.E.P. § 808.02.

Applicants submit that a search of the subject matter of provisionally elected Group II would likely encompass the subject matter of Group IV, and that this would not constitute a serious burden on the Examiner. Groups II and IV, while patentably distinct from one another, are related to each other by composition. Applicants further respectfully note that the restricted subject matter of provisionally elected Group II shares classification with the restricted subject matter of Group IV, in class 536, subclass 23.1, as set forth in the Restriction Requirement. Therefore, Applicants submit that a search of the subject matter of Groups II and IV would not be burdensome because a search of one Group within the class would likely be inclusive of the other Group in that same class.

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Applicants further submit that it is likely that a search of the elected subject matter corresponding to provisionally elected Group II would also encompass references directed to methods of using the elected subject matter corresponding to provisionally elected Group II, such as for example references directed to methods of modifying a recipient polydeoxynucleotide duplex or labeling a displacer-recipient complex using the claimed compositions. Applicants further respectfully note that the restricted subject matter of Groups I, III and V share the same classification within the Restriction Requirement, namely in class 435, subclass 6. Therefore, it is likely that a search of one Group within the class would be inclusive of the other Groups in that same class.

Applicants also respectfully reserve the right to request rejoinder of any non-elected process claims following amendment of the dependency of such claims to depend from

allowable composition claims. It is noted that at least some of the claims of restricted Group V currently depend from claims corresponding to provisionally elected Group II.

In view of the above remarks, it is respectfully requested that the Restriction Requirement be withdrawn and that all claims be allowed to be prosecuted in the same patent application.

### **CONCLUSION**

An indication of allowance of all claims is respectfully solicited. Early notification of a favorable consideration is respectfully requested.

Respectfully submitted,

**HUNTON & WILLIAMS LLP** 

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